



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/891,850	06/26/2001	Sanjay R. Hegde	BUR920000206US1	2428

7590

04/05/2006

ANDREW M. CALDERON
GREENBLUM AND BERNSTEIN P.L.C.
1950 ROLAND CLARKE PLACE
RESTON, VA 20191

EXAMINER

JEANTY, ROMAIN

ART UNIT

PAPER NUMBER

3623

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/891,850	Applicant(s) HEGDE ET AL.	
	Examiner Romain Jeanty	Art Unit 3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 11, 18-19, 22-23 is/are rejected.
- 7) ☒ Claim(s) 7-10, 12-17, 20 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This Final Office Action is in responsive to the communication received on January X, 2006. Claims are still pending in the application.
2. Applicants' amendment filed on January 16, 2006 has overcome the objection to the specification.

Response to Arguments

3. Applicant's arguments filed January 16, 2006 have been fully considered but they are not persuasive.
4. Applicants' argument filed on January 16, 2006 has overcome the 35 USC 101 rejection of claims 1-23. The rejection is withdrawn.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3, 11, 18-19, 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dietrich et al (US Patent No. 5,548,518) in view of Hall, III (US Patent No. 4,015,366) as set forth in the last Office Action mailed on December 12, 2005.

Art Unit: 3623

7. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dietrich 5,548,518) in view of Hall, III "Hall" (US Patent No. 4,015,366) and further in view of de Andrade, Jr. et al. "de Andrade" (US Patent No. 6,606,527) as set forth in the last Office Action mailed on December 12, 2005.

Allowable Subject Matter

8. Claims 7-10, 12-17, and 20-21 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 101, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter of claims 7-8:

Prior art of record fails to teach or suggest wherein: the sorting step further modifies the priority ranked release schedule such that priority of the material releases at a particular level in the "N" separate release schedules dynamically allocates and rations limited component supply and capacity among the material releases; and the allocation step further allocates finite component supply to the material releases in each of the "N" separate release schedules such that a quantity of each material release is constrained by an availability of the limited component supply, and wherein a remaining unscheduled portion of the material release are rescheduled in advance or at a later time period.

10. The following is a statement of reasons for the indication of allowable subject matter of claim 9:

Art Unit: 3623

Prior art of record fails to teach or suggest wherein the allocation step further allocates finite capacity to the material releases in each of the "N" separate release schedules such that the material releases are limited to a size and number of possible releases according to limiting capacity resources, wherein the resources include assembly capacity.

10. The following is a statement of reasons for the indication of allowable subject matter of claims 10, and 21:

Prior art of record fails to teach or suggest considering global information for rationing of the available component supply in each of the "N" separate release schedules in order to determine an optimal delay for the scheduled material releases, wherein the global information includes (i) the priority ranked release schedule including a list of the material releases indexed by part number (PN), location, process type and time period, (ii) quantity of each component required per piece of finished assembly for each PN, (iii) supply of the each component being shipped between locations indexed by locations and time period, (iv) transit time to ship the each component between locations indexed by locations, (v) capacity available indexed by capacity type, location and time period, and (vi) capacity required of each capacity type for each type of material release indexed by location, process and time period.

11. The following is a statement of reasons for the indication of allowable subject matter of claim 12:

Prior art of record fails to teach or suggest wherein the scheduled release is subject to (i) capacity and component supply constraints not being violated, (ii) a maximum possible release at a next level given the capacity and component supply constraints and (iii) limited resources allocated to equal priority releases in proportion to size.

Art Unit: 3623

12. The following is a statement of reasons for the indication of allowable subject matter of claims 13 and 14

Prior art of record fails to teach or suggest allocating the assembly capacities and component supplies according to availability determined by user supplied input including transit/shipping times, capacity requirements and capacity availability from current locations, wherein the allocating step includes: attempting to first allocate component supply and capacity resources at a specified release date subject to constraints on the resources and component supplies, and rationing at least one of the resources and component supplies in proportion to release size if insufficient at least one of the resources and component supplies are available.

13. The following is a statement of reasons for the indication of allowable subject matter of claim 15.

Prior art of record fails to teach suggest the dividing step is applied at predetermined levels of the priority ranked scheduled release; the allocating step includes determining availability of the component supplies to determine availability first in a current period, next in earlier periods, and then in later periods, wherein the availability is computed based on current location and user supplied transit times between locations.

14. The following is a statement of reasons for the indication of allowable subject matter of claims 16-17.

Prior art of record fails to teach suggest wherein the component supplies with a least component supply availability is found in order to determine a maximum release of the product in a predetermined time period; scanning through all capacity types and time periods allocating the assembly capacities over time according to the capacity required and subject to availability

Art Unit: 3623

until sufficient capacity is allocated according to the component supplies; and reducing a remaining release of the product left to a new schedule based on the capacity required and subject to component availability and wherein the scanning step includes the steps of: computing the capacity required for a maximum release for the given time period and the resource, computing the capacity available for the given time period and the resource, and scheduling the maximum release of product if the available capacity is greater than the required capacity.

15. The following is a statement of reasons for the indication of allowable subject matter of claim 20.

Prior art of record fails to teach or suggest wherein: the means for sorting further modifies the priority ranked release schedule such that priority of the material releases at a particular level in the "N" separate release schedules dynamically allocates and rations limited component supply and capacity among the material releases; and the means for allocating further allocates finite component supply to the material releases in each of the "N" separate release schedules such that a quantity of each material release is constrained by an availability of the limited component supply.

Applicants further argued that Dietrich makes no mention of dividing a priority ranked release schedule into N separate release schedules... Applicants continue to argued that Hall does not describe release schedule or component supply, and Hall merely describe release schedules or component supply or makes no mention of allocating available component supply... by rationing the available component supply in each of the N separate release schedule, and the combination of Dietrich and Hall, alone or in combination, do not teach or suggest every element of the claimed invention. In response, the examiner respectfully disagrees because Dietrich

Art Unit: 3623

teaches an allocation algorithm for allocating available resources in order or priority, which teaches applicants' claimed invention. Note col. 4, lines 39-49 of Dietrich. In addition, Hall teaches the concept Hall discloses the concept of rationing a supply based on priorities of resources (col. 48 line 66 through col. 49 line 6). Therefore, combining the teachings of Dietrich and Hall would have been obvious to a person of ordinary skill in the art in order to

Applicants further argued (Page 18) that the examiner has failed to establish a prima facie case of obviousness for claims. In response, the examiner notes that grouping the releases into smaller groups than the priority ranked release schedule; and the priority ranked release schedule is based on at least one requirement for the material releases of an assembly and sequentially computing an implied requirement for the available component supply, and dividing the priority ranked release schedule at any level of a supply chain would have been obvious to a person of ordinary skill in the art with the motivation to control the distribution of resources and scarce goods or services.

Applicants further argued on page 19 that de Andrade (U.S. Patent No. 6,606,527) does not qualify as prior because the instant application has a filing date of June 26, 2001, which pre-dates de Andrade's filing date of January 21, 2003. In response, the examiner disagrees and notes that de Andrade is qualified as prior art because U.S. Patent No. 6,606,527 issued to de Andrade is a continuation of copending application Serial. No. 09/540,065, filed Mar. 31, 2000. Therefore applicants' arguments are moot and the rejection of claims 4-6 is maintained.

Remarks

16. Applicants asserted (Page 16) that the present invention relates to a system for rationing manufacturing resources among competing demands according to a defined set of business rules, and that the combined references of Dietrich and Hall fails to teach the claimed invention such feature. In response to applicants' arguments, it is noted that the features upon which applicant relies (i.e. **...resources among competing demands according to a defined set of business rules**) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 3623

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Romain Jeanty whose telephone number is (571) 272-6732. The examiner can normally be reached on Mon-Thurs from 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq R. Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

April 2, 2006.

Romain Jeanty
Primary Examiner
Art Unit 3623